
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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Tin, Monthly

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TIN IN JULY 1996

Domestic consumption of primary tin in July was estimated by the U.S. Geological Survey (USGS) to be about 1% lower than in June and about 14% higher than in July 1995.

The *Platt's Metals Week* composite price for tin was \$4.17 per pound; slightly higher than in June and slightly lower than in July 1995.

The domestic unit of the tin trading firm, RMT Metals Ltd. (New York, NY), announced the start of operations at its new tin upgrading facility at Victory White Metals Co. (Cleveland, OH). The upgrading unit was purchased from a defunct Brazilian tin smelter. It was reportedly able to remove substantial lead impurities as well as reduce arsenic and antimony content in tin. The facility could reportedly produce about 12-14 tons per day of low lead tin. It was anticipated that the upgrader would be run on a campaign basis. RMT has been a major buyer of Government stockpile tin, on a long-term contract basis, in recent years. [*Ryan's Notes*, August 12, 1996].

Bethlehem Steel Corp., (Bethlehem, PA) reported that it has received a U.S. patent for the development of a more environmentally friendly process for the high-speed tinplating of steel and a plating bath composition that is free of ferrocyanides. Ferrocyanide is a chemical that is commonly added to halogen tinplating baths in large quantities to counter the effect of dissolved iron during the tin plating process. The iron ferrocyanides that result become a major ingredient in a heavy sludge that accumulates in the plating cells, storage tanks, and other plating system components. Bethlehem's new process reportedly uses more "environmentally friendly" antioxidants instead of ferrocyanides. The new antioxidants reportedly substantially reduce the

environmental requirements typical in operating a tin-plating line and the associated costs of sludge disposal. Work on commercializing the process for use at Bethlehem's Sparrows Point, MD, tin mill continues at the firm's Homer Research Laboratories [*American Metal Market*, August 6, 1996].

U.S.-based Sunshine Mining and Refining Co. reported that it is broadening its efforts to prove the viability of its Pirquitas silver-tin property in Argentina. The firm indicates it will double its exploration expenditures to \$2.8 million in the second half of 1996 and expects to make a development decision by early 1997. Pirquitas, which was just recently acquired by Sunshine, reportedly has a resource estimated at 312 million ounces of silver and 463 million pounds of tin [*Metal Bulletin*, August 12, 1996].

The U.S. Trade and Development Agency (USTDA) announced it has provided funds enabling the Romanian Ministry of Industry to commission a feasibility study on the construction of a tin mill in Romania. A U.S. Steel Corp. subsidiary, USX Engineers and Consultants, is to perform the study. The \$306,000 study, \$250,000 of which would be provided by the USTDA, is to begin this September and require 3 months. The study is to determine the size, location, and potential markets for the proposed tinning line. Eventual production, if thought feasible, would probably focus on the food and beverage can markets. The proposed facility would be Romania's first venture into tinplate production [*Metal Bulletin*, August 12, 1996].

Update:

On September 6, 1996, the *Platt's Metals Week* composite price for tin was \$4.12 per pound.

TABLE 1
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	1995 p/	1996		
		June	July	January- July
Production (scrap):				
As tin metal 2/	W	W	W	W
From brass and bronze e/ 3/	10,800	900	900	6,300
Consumption:				
Primary	34,400	3,120	3,090	21,400
Secondary	10,400	856 r/	837	6,040
Imports for consumption, metal	33,200	2,270	NA	NA
Exports , metal	2,790	302	NA	NA
Stocks at end of period	4,580	5,760 r/	6,060	XX
Prices (average cents per pound): 4/				
Metals Week composite	415.61	413.65	417.03	XX
Metals Week New York dealer	294.54	290.19	291.56	XX
London, standard grade, cash	282.00	280.00	283.00	XX
Kuala Lumpur	277.59	278.01	279.84	XX

e/ Estimated. p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

1/ Data are rounded to three significant digits, except prices.

2/ Includes tin metal recovered at detinning and other plants.

3/ Includes tin recovered from copper-, lead-, and tin-base scrap.

4/ Price data from Platt's Metals Week.

TABLE 2
METALS WEEK COMPOSITE PRICE

(Cents per pound)

Period	High	Low	Average
1995 (annual)	473.30	360.15	415.61
1995:			
July	453.80	421.42	438.73
August	473.30	431.07	458.66
September	434.50	414.20	424.80
October	427.10	410.54	417.19
November	427.16	419.31	425.35
December	427.10	416.42	419.75
1996:			
January	423.56	415.24	418.59
February	417.70	411.89	415.55
March	427.03	405.03	414.71
April	435.05	422.96	429.61
May	436.25	415.30	426.88
June	418.01	410.83	413.65
July	423.04	408.27	417.03

Source: Platt's Metals Week.

TABLE 3
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES 1/

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	Shipments 2/
1995: p/	205,000	1,660,000	9,600	5.8	2,400,000
1996:					
January	14,200	116,000	729	6.3	179,000
February	16,700	131,000	826	6.3	196,000
March	16,900	144,000	813	5.6	220,000
April	16,100	124,000	790	6.3	202,000
May	16,200	122,000	821	6.7	208,000
June	16,500	137,000	843	6.2	218,000
July	15,700	141,000	857	6.1	NA

p/ Preliminary. NA Not available.

1/ Data are rounded to three significant digits.

2/ Shipments data from American Iron and Steel Institute monthly publication AIS10.

TABLE 4
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS 1/

(Metric tons)

Country or product	1995	1996		
		May	June	January- June
Imports:				
Metal (unwrought tin):				
Bolivia	6,630	736	423	3,460
Brazil	8,070	642	899	4,480
China	5,610	200	148	1,810
India	146	60	120	336
Indonesia	7,230	260	580	3,280
Malaysia	3,810	105	--	365
Russia	149	--	19	371
Other	1,510 r/	291 r/	85	626
Total	33,200	2,290	2,270	14,700
Other, (gross weight):				
Alloys	11,400	750	893	5,790
Bars and rods	484	72	38	369
Foil, tubes, and pipes	16	--	--	(2/)
Plates, sheets, and strip	468	274	173	601
Powders and flakes	37	--	--	--
Waste and scrap	15,900	503	634	4,510
Miscellaneous	1,470	88	84	521
Total	29,800	1,690	1,820	11,800
Exports (metal)	2,790	346	302	2,370

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 5
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT 1/

(Metric tons of contained tin)

Product	1996							January- July total
	1995 p/	June			July			
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 2/	W	W	W	W	W	W	W	W
Babbitt	254	22	W	22	21	W	21	138
Bar tin and anodes	77	9	--	9	8	--	8	52
Bronze and brass	1,940	45	95	140	40	81	121	1,050
Chemicals	W	W	--	W	W	--	--	W
Collapsible tubes and foil	W	W	--	W	W	--	W	W
Solder	9,470	542	243	785	518	238	756	5,200
Tinning	689	133 r/	--	133 r/	124	--	124	959
Tinplate 3/	9,610	843	W	843	857	W	857	5,680
Tin powder	159	W	--	W	48	--	48	243
White metal 4/	W	W	--	W	W	--	W	8
Other	6,680	626 r/	18 r/	644 r/	571	18	589	4,280
Total reported	28,900	2,220	356 r/	2,580 r/	2,190	337	2,520	17,600
Estimated undistributed consumption 5/	15,900	900	500	1,400	900	500	1,400	9,800
Total	44,800	3,120	856 r/	3,980	3,090	837	3,920	27,400

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includesterne metal.

3/ Includes secondary pig tin and tin acquired in chemicals.

4/ Includes pewter, britannia metal, and jewelers' metal.

5/ Estimated consumption of plants reporting on an annual basis.

TABLE 6
DEFENSE LOGISTICS AGENCY
TIN STOCKPILE DISPOSALS 1/

(Metric tons)

Period	Monthly disposals
1995:	
July	40
August	40
September	235
October	110
November	20
December	15
Year total	955
1996:	
January	90
February	450
March	534
April	5
May	10
June	330
July	1,180
Total	2,590

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Defense Logistics Agency.